IN THE CLAIMS

This listing of claims replaces all prior versions and listing of claims in the application:

1. (currently amended) A method of producing a human pluripotent stem cell from a human adult somatic cellkeratinocyte comprising treating said adult somatic cellkeratinocyte with a first agent that promotes demethylation of nucleic acids, a second agent that inhibits the deacetylation of histone proteins, and a third agent that promotes the arrest of cells in metaphase, wherein the adult somatic cellkeratinocyte, subsequent to treating with the first agent, the second agent and the third agent, ishas become a pluripotent stem cell which (a) expresses a telomerase gene product and an Oct-4 gene product, and (b) is capable of expressing a gene product selected from the group consisting of neurofilament, cardiac actin and alpha antitrypsin.

2. (canceled)

- 3. (previously amended) The method of claim 1 wherein the first agent is 5-aza-2'-deoxycytidine.
- 4. (previously amended) The method of claim 1 wherein the first agent is comprising treating said adult somatic cell with 5-aza-2'-deoxycytidine, the second agent is trichostatin A and the third agent is Tat-cyclin B.

5-7. (canceled)

8. (currently amended) The method of claim 4 wherein the adult somatic cell is a keratinocytethe pluripotent stem cell, upon treatment with retinoic acid, expresses a gene product selected from the group consisting of neurofilament, cardiac actin and alpha antitrypsin.

9-20. (canceled)

21. (previously presented) The method of claim 1 wherein the second agent is trichostatin A.

22. (previously presented) The method of claim 1 wherein the third agent is Tat-cyclin B.

23-33. (canceled)